

CARE IN PEDIATRIC ONCOLOGY



Care in Pediatric Oncology

Editors

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CONTENTS

Presentation	4
Family Care	6
Nutritional Care	35
Hand Hygiene.....	55
Dental Care	60
Storage of Medications	76
Nursing Care: professional	80
Nursing Care: patient	107
Appropriate Disposal of Medicines	119
Vaccines.....	122
Adverse Reaction of Excipients: A Pediatric Approach	126
Splitting Antineoplastic Pills.....	153
List of Contributors	166

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All the professionals working in the healthcare network in hospitals, health centers, clinics, or emergency units, are essential in caring for children/teenagers with cancer. In this chapter, you will understand better how nursing professionals can help on the Journey to a safer and smoother treatment.



Nursing plays a fundamental role in the treatment of a hospitalized child with cancer and in supporting family because they work directly in administering medications and monitoring patients' daily routines. Thus, due to this proximity, these professionals can help

guide and clarify doubts that patients and caregivers may have regarding the disease and the treatment (Instituto Nacional de Câncer – INCA, 2008).

1 NURSING CARE DURING HOSPITALIZATION

Nursing cares with the hospitalized child or teenager for cancer treatment can be divided, in short, into (1) personal care and (2) care related to medications. Besides directly participating in the care, nursing professionals can guide the patient’s caregivers, so they are also aware of personal care and care with medications.

As for personal care, the caregiver must pay attention to directions given by the nurses about hygiene, which includes using the bathroom and brushing the teeth. As for care with medications, the caregiver also must pay attention to the nurses’ directions about the medications the patient is using, especially about the unwanted effects and changes that might happen during and/or after their use. Thus, as the caregiver is close to the child or teenager most of the time in the hospital, they can help nurses with this care in addition to being wary of any odd signs the patient may develop due to the use of medication so that they can report uncommon or unwanted situations (INCA, 2008).



Hand washing



Brushing teeth

Below you can see some situations or information the caregiver should report to nursing if they observe something during the period of the child’s/teenager’s hospitalization.

ATTENTION TO SITUATIONS THAT SHOULD BE REPORTED TO NURSING

1. Inform nursing about bad reactions observed in the child/teenager after medication use. Some of these reactions after using chemotherapeutic drugs may have immediate or late effects, and even in the case of known effects, they must always be reported to nursing. Examples of immediate bad reactions a few hours after use of the medication are wounds where the chemotherapeutic drug is administered, headache or skin allergy (itching and/or rash all over the body or in the place where the drug was administered), shivering, fever, nausea, dizziness, feeling faint. As for late harmful effects, there may be all-the-time tiredness, fast weight loss, nausea, and vomiting- The caregiver must always immediately call nursing as soon as they notice any alteration or change in the clinical conditions of the child/teenager under treatment. Another vital information the caregiver must report to the nursing team is if the child shows difficulty breathing because it might mean a more severe allergy (Resende, 2017; Giavina-Bianchi, 2018; Sales et al., 2012).



Weight loss



Tiredness



Rash



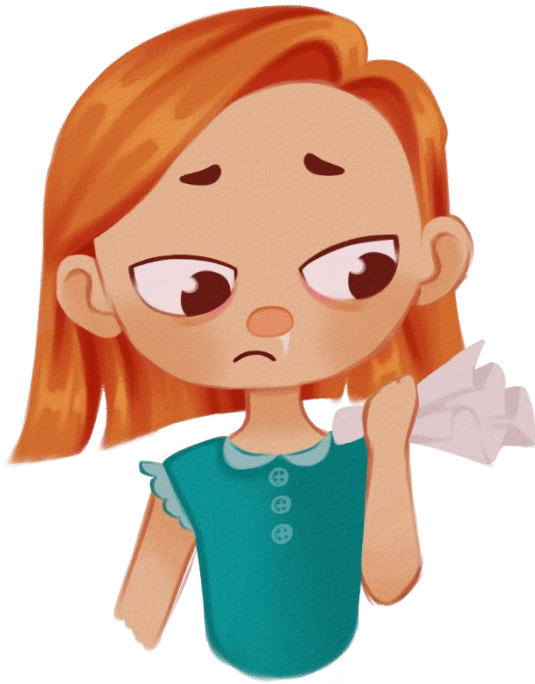
Wound on the skin



Headache



Dizziness



Allergy



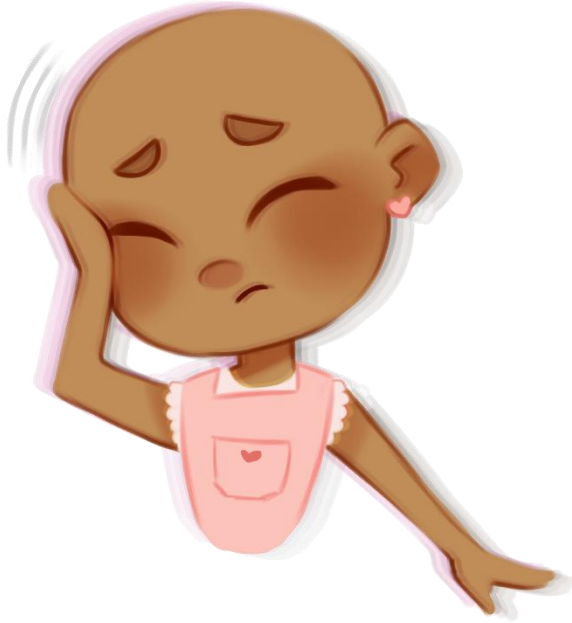
Chill



Fever

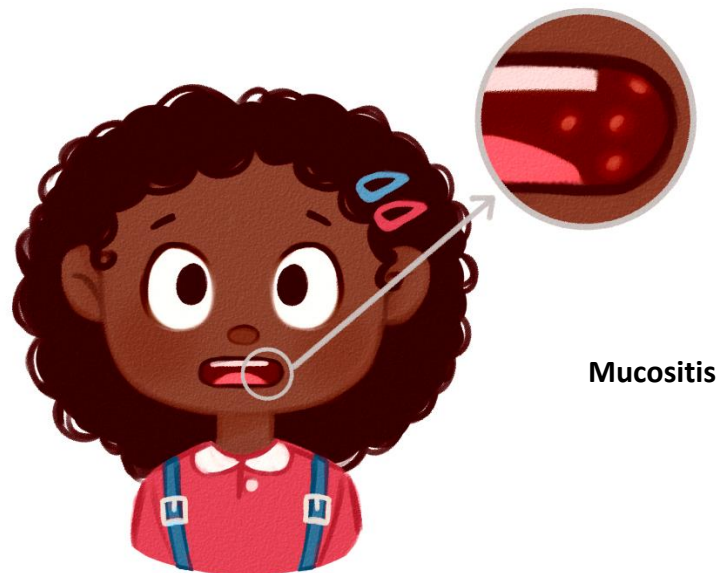


Difficulty breathing



Feeling faint

2. The caregiver must also inform if the child/teenager has been having difficulty taking the medications because of a bad reaction they might be feeling, for example. Non-adherence, that is, not taking the drug or taking it wrongly, may hinder the child's/teenager's treatment and interfere with the result and its total cure (INCA, 2008).
3. The caregiver must also inform if they have any questions about the disease, the necessary care, and the protocol of the child's/teenager's treatment. This is essential information, and the caregiver must be informed of all aspects of the treatment, which includes written information regarding bad reactions the chemotherapeutic drug may cause for many years (INCA, 2008).
4. Inform if the child is eating well, if they have any difficulty swallowing if they are urinating enough, or if the urine is foamy. It is also essential to observe the color of the poo, if it looks hard or soft, and if the child shows any diarrhea or constipation (INCA, 2008; Marques et al., 2015).
5. Inform if the child has any wound in the mouth or digestive system (the injuries might indicate a case of mucositis, which requires assistance from the health team) (Marques et al., 2015).



Nursing may instruct the caregiver to write a report of the child's/teenager's signs and symptoms, possible alterations, and questions that have arisen so that nothing goes unnoticed.

2 PRECAUTIONS IN THE BATHROOM

The caregiver often stays in the hospital with the child or teenager. Thus, some precautions are essential before, during, and after showering, including the common bathroom use for the caregiver and the patient (Marques et al., 2015; Universidade Federal de Minas Gerais, [2013?]).

In the case of the patient who has been using chemotherapeutic drugs, there is a need for closer attention to showering. At this moment, it is essential to follow an order for cleaning: wash (1) hands, (2) face, (3) head, (4) belly, (5) back, (6) arms, (7) legs and, if the child has a catheter, it should be the last item to be cleaned, being careful to avoid contamination (Marques et al., 2015; Universidade Federal de Minas Gerais, [2013?]).



Besides, it is essential to be careful with the bathroom used by this child/teenager on the day the chemotherapeutic drug is administered and on the two subsequent days. After using the toilet, one must flush three times with the lid down, and the toilet must be cleaned from the inside out, ending the cleaning with bleach. If the caregiver is responsible for changing the child's/teenager's diapers, it is necessary to use gloves and disposable materials. All the contaminated materials must be disposed of into two plastic bags, which must be tightly closed (Marques et al., 2015; Universidade Federal de Minas Gerais, [2013?]).

3 PRECAUTIONS WITH THE MEDICATIONS ADMINISTERED THROUGH A TUBE



Child with tube

Many times, oncologic patients are unable to swallow solid particles (such as medications and food) and need to take the medication through a tube. The tube enters through the mouth or the nose and takes the medication in liquid form to the stomach or intestine. Some extra care must be taken with patients that need to use the drugs through the tube (Moreira et al., 2004; Ministério da Saúde (BR), 2002).

It is essential to pay attention to cases in which the patient is using the tube for feeding and need to administer medication simultaneously through the same tube. In this case, the health team will check the compatibility of the drug and the food administered via tube (nutrients of enteral nutrition) to change the time for medication intake if the effect of the medication is decreased because of the food (Moreira et al., 2004; Ministério da Saúde (BR), 2002).

When the medication cannot be administered with food, the health professionals will adapt the times and procedures so that the patient gets the drug and the food through the tube safely, as described below. Feeding may be interrupted for two hours so that the medication can be administered without getting in contact with this food. Another critical point is the attention that should be given to cleaning the tube. For cleaning the tube and also keeping it from getting blocked (obstructed), it is essential that the nurse washes the inside of the tube with a syringe containing 15 to 30ml of tepid water. This step is made before and after administering the medication, to remove any residue of the food or medicine that may have gotten stuck in the tube (Moreira et al., 2004; Ministério da Saúde (BR), 2002; Williams, 2008).

When more than one medication needs to go through the tube simultaneously, cleaning must be compulsory between the administration of both drugs with 5 to 10 mL of tepid water (Williams, 2008). When there is a blockage (obstruction) of the tube, it is necessary to use 50mL of tepid water. In this case, there should be attention to the speed applied to the plunger not to damage the tube. If the blockage (obstruction) continues, the tube should be washed with carbonated water or alkaline solution (Gharib et al., 1996).

The health team needs to pay attention to the characteristics of the drug (such as PH and viscosity), for they are factors related to the formation of a solid part (precipitation) in the tube, which would be one reason for the blockage (obstruction). Besides, another point for attention is the concentration (osmolarity) because drugs with high concentration administered through a tube may cause diarrhea and colic in the patient. So, when it comes to a liquid formulation, many aspects must be observed on administration through a line, even if, apparently, it does not do any harm (Moreira et al., 2004; Ministério da Saúde (BR), 2002).

ATTENTION TO SOME PILLS* THAT SHOULD NOT BE TAKEN VIA		
Albendazole	Vitamin B Complex (Multivitamin)	Nifedipine
Amoxicilin + Clavulanate	Dexclorfeniramine	Sulfamethoxazole +Trimethoprim
Azithromycin	Dimehydrinate + Pyridoxine	Ferrous Sulfate
Calcitriol	Isosorbid	Temozolamide
Cephalexin	Levetiracetam	Mineral Oil*
Ciclosporin	Mercaptopurine	
Potassium Chloride	Mycophenolate Mofetil	

Fonte: White and Bradnam (2007).

Precaution with bleedings and purple spots throughout the child's body:

- Avoid medicines and teas made with plants.
- Avoid unprescribed medicines.
- Brush teeth smoothly using very soft toothbrushes.
- Wear shoes even inside the home.
- Be careful with sharp and edgy objects within the reach of the child.
- Use moisturizers for the skin and mouth to prevent cracking and dryness.
- Avoid plays, games and exercises which can cause bumping, stumbling or hitting the body.
- Do not pull the scabs of any injury.
- Do not pop the pimples.
- If your daughter has a period, ask the doctor to prescribe a highly absorbing pad.
- If there is gum bleeding, rinse the mouth with cold water or suck ice chips.
- If the nose bleeds, press one nostril at a time and block it for 5 to 10 minutes.
- If any other part of the body bleeds, press the wound with a tissue until the bleeding stops.
- Put some ice on the purple spots that appear.
- Seek medical assistance as soon as possible (ST. Jude Children's Research Hospital, 2024).

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